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09/634,140	08/08/2000	Robert J Crowley	ANT-Good	4276
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EXAMINER				
PERSINO, RAYMOND B				
ART UNIT		PAPER NUMBER		
2682				
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Don Halgren
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Manchester, MA 01944

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,140

Applicant(s)

CROWLEY ET AL.

Examiner

Raymond B. Persino

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-32 is/are allowed.
- 6) ☒ Claim(s) 16-25 and 33-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification refers to a broadband probe and thus supports the subject matter of broad bandwidth including a plurality of operating frequency bands as claimed in claim 23. However, there is no support in the specification for the subject matter in claims 24 and 25. The specification does not disclose that the plurality of operating frequency bands are harmonically related or that the plurality of operating frequency bands are placed within a range of frequencies from the VHF region to the microwave region.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 16 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,112,106. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 16 of the application merely missing the additional limitations of the externally radiative antenna and radiative coupling probe being elongated and linear and that their relationship being adjacent, parallel, and closely spaced-apart. Therefore claim 16 would have been obvious to a person of ordinary skill in the art at the time of the invention when considering U.S. Patent No. 6,112,106. Omission of an element and its function in combination is an obvious expedient if the remaining elements perform the same functions as before. *In re Karlson*, 136 USPQ 184 (CCPA 1963).
3. Claim 17 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,112,106.
4. Claim 18 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of U.S. Patent No. 6,112,106.
5. Claim 19 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,112,106.
6. Claim 20 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 5 of U.S. Patent No. 6,112,106.
7. Claim 21 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 1 of U.S. Patent No. 6,112,106 in view of claim 3 of U.S. Patent No. 6,594,471.

8. Claim 22 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 1 of U.S. Patent No. 6,112,106 in view of claim 3 of U.S. Patent No. 6,594,471 and further in view of an examiner's official notice that it is was known at the time of the invention for an article of furniture of be either an airplane seat tray, a desk, a chair, a table or an automobile. Therefore claim 22 would have been obvious to a person of ordinary skill in the art at the time of the invention when considering U.S. Patent No. 6,112,106 and the examiner's official notice. Use of a known arrangement allows for predicted results.

9. Claim 33 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 14 or 16 of U.S. Patent No. 6,112,106. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 33 of the application merely missing the additional limitations of the externally radiative antenna and ungrounded coupling plate coupling probe being adjacent. Therefore claim 16 would have been obvious to a person of ordinary skill in the art at the time of the invention when considering U.S. Patent No. 6,112,106. Omission of an element and its function in combination is an obvious expedient if the remaining elements perform the same functions as before. *In re Karlson*, 136 USPQ 184 (CCPA 1963).

10. Claim 34 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 17 of U.S. Patent No. 6,112,106.

11. Claim 35 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 18 of U.S. Patent No. 6,112,106.

Art Unit: 2682

12. Claim 36 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 18 of U.S. Patent No. 6,112,106 and further in view of an examiner's official notice. Claim 18 of U.S. Patent No. 6,112,106 does not disclose that the personal communication device operates at a frequency range from the VHF region of the frequency spectrum to the microwave region of the spectrum. Nevertheless the examiner takes official notice that it was known at the time of the invention that personal communication devices operated plurality of operating frequency bands that are harmonically related and are placed within a range of frequencies from the VHF region to the microwave region. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region. Having the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region allows the input and output circuitry to be used with known devices.

13. Claim 37 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11 and 13 of U.S. Patent No. 6,112,106 and claims 7 and 23 of U.S. Patent No. 5,711,014. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 39 of the application includes additional limitations of 1) the receiving support having a charging pin to charge the battery, 2) that the coupling probe is tuned, 3) that coupling

probe is physically positioned between a portion of a wall of said receiving support and said first antenna, 4) using a coaxial cable connector. MARUI et al (US 5,367,556 A) discloses receiving support having a charging pin to charge the battery (column 2 line 58 to column 3 line 30). Claim 23 of U.S. Patent No. 5,711,014 discloses the tuning. Claim 13 of U.S. Patent No. 6,112,106 provides for the antenna and probe to be within a housing. Thus, the coupling probe will be physically positioned between a portion of a wall of said receiving support and said first antenna. Lastly, claim 7 of U.S. Patent No. 5,711,014 provides for the use of the coaxial cable connector. Therefore claim 37 would have been obvious to a person of ordinary skill in the art at the time of the invention when considering U.S. Patent No. 6,112,106, U.S. Patent No. 5,711,014 and MARUI et al (US 5,367,556 A). Having a charging pin to charge the battery provides the ability to make electrical connection for the purpose of charging. Also, tuning the coupling probe increases the efficiency of the coupling. Moreover, having the coupling probe be physically positioned between a portion of a wall of said receiving support and said first antenna allows the probe and antenna to be within a housing. Finally, coaxial cable connectors provide efficient means to propagate RF energy.

14. Claim 38 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 2 of U.S. Patent No. 5,711,014.

15. Claim 39 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11 and 13 of U.S. Patent No. 6,112,106 and claims 7 and 23 of U.S. Patent No. 5,711,014. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim

Art Unit: 2682

39 of the application includes additional limitations of 1) the receiving support having a charging pin to charge the battery, 2) that the coupling probe is tuned, 3) that coupling probe is physically positioned between a portion of a wall of said receiving support and said first antenna, 4) using a coaxial cable connector. MARUI et al (US 5,367,556 A) discloses receiving support having a charging pin to charge the battery (column 2 line 58 to column 3 line 30). Claim 23 of U.S. Patent No. 5,711,014 discloses the tuning. Claim 13 of U.S. Patent No. 6,112,106 provides for the antenna and probe to be within a housing. Thus, the coupling probe will be physically positioned between a portion of a wall of said receiving support and said first antenna. Lastly, claim 7 of U.S. Patent No. 5,711,014 provides for the use of the coaxial cable connector. Therefore claim 37 would have been obvious to a person of ordinary skill in the art at the time of the invention when considering U.S. Patent No. 6,112,106, U.S. Patent No. 5,711,014 and MARUI et al (US 5,367,556 A). Having a charging pin to charge the battery provides the ability to make electrical connection for the purpose of charging. Also, tuning the coupling probe increases the efficiency of the coupling. Moreover, having the coupling probe be physically positioned between a portion of a wall of said receiving support and said first antenna allows the probe and antenna to be within a housing. Finally, coaxial cable connectors provide efficient means to propagate RF energy.

16. Claim 40 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over 2 of U.S. Patent No. 5,711,014.

Claim Rejections - 35 USC § 112

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Regarding claims 37 and 39, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Objections

19. Claim 16 is objected to because of the following informalities: In the second line in claim 16 a space is missing in-between "of:" and "arranging". Appropriate correction is required.

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claims 23 is rejected under 35 U.S.C. 102(b) as being anticipated by
TOWNSEND (US 2,790,899 A).

Regarding claim 23, TOWNSEND discloses a docking system for providing hands-free operation of a personal communication device, comprising: a placement

device to position said personal communication device with respect to said docking system; input and output circuitry having a broad bandwidth capable of conducting rf energy on a plurality of operating frequency bands from an external transmission line to said personal communication device (column 2 lines 14-64).

22. Claims 23 is rejected under 35 U.S.C. 102(b) as being anticipated by SASAKI et al (US 4,850,006 A).

Regarding claim 23, SASAKI et al discloses a docking system for providing hands-free operation of a personal communication device, comprising: a placement device to position said personal communication device with respect to said docking system; input and output circuitry having a broad bandwidth capable of conducting rf energy on a plurality of operating frequency bands from an external transmission line to said personal communication device (see figure 1 and column 2 line 35 to column 5 line 3).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over MARUI et al (US 5,367,556 A) in view of BLAESE (US 5,357,262 A).

Regarding claim 23, MARUI et al discloses a docking system for providing hands-free operation of a personal communication device, comprising: a placement device to position said personal communication device with respect to said docking system (column 10 line 56 to column 11 line 17 and figure 6). However, MARUI et al does not disclose input and output circuitry having a broad bandwidth capable of conducting rf energy on a plurality of operating frequency bands from an external transmission line to said personal communication device. BLAESE discloses input and output circuitry having a broad bandwidth capable of conducting rf energy on a plurality of operating frequency bands from an external transmission line to said personal communication device (column 3 line 33 to column 5 line 17). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Marui et al and BLAESE. Marui et al's receiving support, which includes convenience enhancements for a portable communication device, would benefit from the transmission and reception performance enhancements of BLAESE. With the teachings of BLAESE one could use a higher gain antenna that is ideally placed.

25. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over MARUI et al (US 5,367,556 A) in view of BLAESE (US 5,357,262 A) and further in view of an examiner's official notice.

Regarding claim 24 and 25, see the rejection of the parent claim concerning the subject matter this claim depends from. However, neither MARUI et al nor BLAESE disclose that the plurality of operating frequency bands are harmonically related or that

Art Unit: 2682

the plurality of operating frequency bands are placed within a range of frequencies from the VHF region to the microwave region. Nevertheless the examiner takes official notice that it was known at the time of the invention that personal communication devices operated plurality of operating frequency bands that are harmonically related and are placed within a range of frequencies from the VHF region to the microwave region. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region. Having the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region allows the input and output circuitry to be used with known devices.

26. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over SASAKI et al (US 4,850,006 A) in view of an examiner's official notice.

Regarding claim 24 and 25, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SASAKI et al does not disclose that the plurality of operating frequency bands are harmonically related or that the plurality of operating frequency bands are placed within a range of frequencies from the VHF region to the microwave region. Nevertheless the examiner takes official notice that it was known at the time of the invention that personal communication devices operated plurality of operating frequency bands that are harmonically related and are placed

within a range of frequencies from the VHF region to the microwave region. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region. Having the input and output circuitry to function on the plurality of operating frequency bands that are harmonically related or that are placed within a range of frequencies from the VHF region to the microwave region allows the input and output circuitry to be used with known devices.

Allowable Subject Matter

27. Claims 26-32 are allowed.

28. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 26, the applicant includes the subject matter of a method for the permitting use of and for the monitoring of communication of a personal communication device arranged within an rf resistant structure, said method including the use of a further circuit within said rf resistant structure, said personal communication device having an externally radiative antenna, said method comprising the steps of: arranging at least one first ungrounded capacitive coupling plate coupling probe in said rf resistant structure so as to be in a spaced apart relationship with respect to said externally radiative antenna of said personal communication device to permit radio frequency communication therebetween; connecting said coupling probe in said rf resistant

structure to said further circuit in said rf resistant structure; connecting a signal transmission monitoring computer to said further circuit for collecting personal communication device user information; connecting said further circuit to a second antenna outside of said rf resistant structure; arranging a personal communication device within said rf resistant structure so that said externally radiative antenna of said personal communication device is spaced apart from said coupling probe within said rf structure; energizing said personal communication device to permit communication through said further circuit and said second antenna arranged outside of said rf resistant structure; and monitoring use of said personal communication device within said rf resistant structure. Specifically, the limitations of, connecting a signal transmission monitoring computer to said further circuit for collecting personal communication device user information and monitoring use of said personal communication device within said rf resistant structure, when considered with the remaining limitations, comprise a unique combination of subject matter that is neither taught nor suggested by the prior art.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

CROWLEY et al (US 5,493,702 A)

CROWLEY et al (US 6,064,343 A)

GILHOUSEN (US 5,519,761 A)

WRIGHT et al (US 5,440,315 A)

STEPHENS et al (US 5,532,703 A)

PERROTTA et al (US 5,668,561 A)

DU (US 5,898,408A)

CHU et al (US 5,890,055 A)

GEORGES (US 6,014,546 A)

FRYE (US 4,220,955 A)

AISAKA et al (US 5,048,117 A)

ZAKMAN et al (US 4,903,326 A)

BHAGAT et al (US 5,438,610 A)

WALKER et al (US 3,323,063 A)

TURNBULL et al (US 5,084,864 A)

WASS (US 6,069,592 A)

MOLLER et al (US 5,995,050 A)

BROWN (US 5,940,038 A)

LEHTOLA (US 5,822,705 A)

VAN DER KAAY et al (US 5,774,789 A)

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703) 308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Raymond B. Persino *RP*
Examiner
Art Unit 2682

RP

Lee Nguyen 12/15/03
LEE NGUYEN
PRIMARY EXAMINER